

Listing of Claims

The following listing of claims will replace all prior versions, and listings, of claims in the subject application:

Claim 1 (canceled).

2. (previously presented) The image processing apparatus as claimed in claim 4,
wherein:

said first processing way comprises a way for achieving a high-order image processing for controlling image degradation.

3. (previously presented) The image processing apparatus as claimed in claim 4,
wherein:

said second processing way comprises a way of simply changing the number of pixels without changing the respective pixel values.

4. (currently amended) An image processing apparatus for changing the size of image data of an original image, comprising:

a comparison part comparing an image information value which indicates predetermined image information of the original image, with a corresponding predetermined reference value which is previously set for each of the predetermined image information; and

a sharing-ratio determining part which, based on a comparison result of said comparison

part, determines a sharing ratio in processing for changing the size of the image data between a first processing way and a second processing way different from said first processing way, wherein:

said sharing-ratio determining part calculates the sharing ratio, and adjusts the sharing ratio in the processing between the first and second processing ways so that the entire process of a predetermined image size-change processing is completed within a given time duration, if a processing time for performing the entire processing of the predetermined image size-change processing utilizing the first processing way but not the second processing way exceeds the given time duration,

the image forming apparatus includes at least one of a copying machine and a printer, and the adjustment of the sharing ratio is made in such a manner that the sharing ratio is gradually changed, the required time duration is calculated every time of the gradual changing of the sharing ratio, the thus-calculated required time duration is compared with the given time duration, and then, the sharing ratio at which the comparison result indicates that the required time duration corresponds to the given time duration is obtained.

5. (previously presented) The image processing apparatus as claimed in claim 4, wherein:

said comparison part compares an image data size-change rate required with a predetermined reference value instead of comparing the predetermined image information value of the original image.

6. (previously presented) The image processing apparatus as claimed in claim 4,
wherein:

the information of the image information value and predetermined reference value,
compared by said comparison part, comprises information concerning the data size of the
original image.

7. (previously presented) The image processing apparatus as claimed in claim 4,
wherein:

the information of the image information value and predetermined reference value,
compared by said comparison part, comprises information concerning the number of colors
expressible by each pixel of the original image.

8. (previously presented) The image processing apparatus as claimed in claim 4,
wherein:

the information of the image information value and predetermined reference value,
compared by said comparison part, comprises information concerning the resolution of the
original image.

9. (previously presented) The image processing apparatus as claimed in claim 4,
wherein:

the information of the image information value and predetermined reference value,
compared by said comparison part, comprises information as to whether or not the original

image is a color image or a monochrome image.

10. (previously presented) The image processing apparatus as claimed in claim 4,
wherein:

the sharing ratio between the first and second processing ways is determined according to
a predetermined attribute of the original image.

11. (previously presented) The image processing apparatus as claimed in claim 4,
wherein:

the sharing ratio between the first and second processing ways is determined according to
a permissible time duration for completing the entire process of a relevant image size-change
processing.

12. (previously presented) The image processing apparatus as claimed in claim 4,
wherein:

said first processing way comprises a process for preventing a jaggy from becoming
conspicuous.

13. (original) The image processing apparatus as claimed in claim 10, wherein:
the predetermined attribute of the original image which is used for determining the
sharing ratio by said sharing-ratio determining part comprises the number of used colors in the
original image.

14. (previously presented) The image processing apparatus as claimed in claim 4,
wherein:

the sharing ratio between the first and second processing ways is determined by said
sharing-ratio determining part according to the contents of image processing in the entire process
of a relevant image size-change processing.

15. (previously presented) The image processing apparatus as claimed in claim 4,
wherein an application of the first and second processing ways is made in such a manner that one
of the first and second processing way is applied, and, after that, the other processing way is
applied.

16. (original) The image processing apparatus as claimed in claim 15, wherein the
application of the first and second processing ways is made in such a manner that one of the first
and second processing way, which one requires a longer processing time, is applied first, and,
after that, the other processing way is applied.

17. (previously presented) The image processing apparatus as claimed in claim 4,
wherein an application of the first and second processing ways is made in such a manner that one
of a first mode and a second mode is selected according to a comparison result of said
comparison part,

wherein said first mode is such that both said first and second processing ways are

applied in a combination manner, and said second mode is such that only one of the first and second processing ways is applied.

18. (original) The image processing apparatus as claimed in claim 17, wherein said second mode is such that only one of the first and second processing way, which one requires a longer processing time, is applied.

19. (previously presented) The image processing apparatus as claimed in claim 4, wherein:

said first processing way comprises an image size-change processing for an integer size-change rate, and said second processing way comprises an image size-change processing for a size-change rate which includes a fraction.

Claim 20 (canceled).

21. (previously presented) The image processing method as claimed in claim 23, wherein:

said first processing way comprises a way for achieving a high-order image processing for controlling image degradation.

22. (previously presented) The image processing method as claimed in claim 23, wherein:

said second processing way comprises a way of simply changing the number of pixels without changing the respective pixel values.

23. (currently amended) An image processing method for changing the size of image data of an original image, comprising:

a comparison step comparing an image information value which indicates predetermined image information of the original image, with a corresponding predetermined reference value which is previously set for each of the predetermined image information; and

a sharing-ratio determining step, based on a comparison result of said comparison step, determining a sharing ratio in processing for changing the size of the image data between a first processing way and a second processing way different from said first processing way, wherein:

said sharing-ratio determining step comprises calculating the sharing ratio, and adjusting the sharing ratio in the processing between the first and second processing ways so that the entire process of a predetermined image size-change processing is completed within a given time duration, if a processing time for performing the entire processing of the predetermined image size-change processing utilizing the first processing way but not the second processing way exceeds the given time duration,

said sharing-ratio determining step is performed in at least one of a copying machine and a printer, and

the adjustment of the sharing ratio is made in such a manner that the sharing ratio is gradually changed, the required time duration is calculated every time of the gradual changing of the sharing ratio, the thus-calculated required time duration is compared with the given time

duration, and then, the sharing ratio at which the comparison result indicates that the required time duration corresponds to the given time duration is obtained.

24. (previously presented) The image processing method as claimed in claim 23,
wherein:

in said comparison step, an image data size-change ratio required is compared with a predetermined reference value instead of comparing the predetermined image information value of the original image.

25. (previously presented) The image processing method as claimed in claim 23,
wherein:

the information of the image information value and predetermined reference value which is applied in said comparison step for comparison comprises information concerning the data size of the original image.

26. (previously presented) The image processing method as claimed in claim 23,
wherein:

the information of the image information value and predetermined reference value which is applied in said comparison step comprises information concerning the number of colors expressible by each pixel of the original image.

27. (previously presented) The image processing method as claimed in claim 23,

wherein:

the information of the image information value and predetermined reference value which is applied in said comparison step comprises information concerning the resolution of the original image.

28. (previously presented) The image processing method as claimed in claim 23,
wherein:

the information of the image information value and predetermined reference value which is applied in said comparison step comprises information as to whether or not the original image is a color image or a monochrome image.

29. (previously presented) The image processing method as claimed in claim 23,
wherein:

the sharing ratio between the first and second processing ways is determined according to a predetermined attribute of the original image.

30. (previously presented) The image processing method as claimed in claim 23,
wherein:

the sharing ratio between the first and second processing ways is determined according to a permissible time duration for completing the entire process of a relevant image size-change processing.

31. (previously presented) The image processing method as claimed in claim 23,
wherein:

said first processing way comprises a process for preventing a jaggy from becoming
conspicuous.

32. (original) The image processing method claimed in claim 29, wherein:
the predetermined attribute of the original image which is used for determining the
sharing ratio in said sharing-ratio determining step comprises the number of used colors in the
original image.

33. (previously presented) The image processing method as claimed in claim 23,
wherein:
the sharing ratio between the first and second processing ways is determined in said
sharing-ratio determining step according to the contents of image processing in the entire process
of a relevant image size-change processing.

34. (previously presented) The image processing method as claimed in claim 23,
wherein an application of the first and second processing ways is made in such a manner that one
of the first and second processing way is applied, and, after that, the other processing way is
applied.

35. (original) The image processing method as claimed in claim 34, wherein the

application of the first and second processing ways is made in such a manner that one of the first and second processing way, which one requires a longer processing time, is applied, and, after that, the other processing way is applied.

36. (previously presented) The image processing method as claimed in claim 23, wherein an application of the first and second processing ways is made in such a manner that one of a first mode and a second mode is selected according to a comparison result of said comparison step,

wherein said first mode is such that both said first and second processing ways are applied in a combination manner, and said second mode is such that only one of the first and second processing ways is applied.

37. (original) The image processing method as claimed in claim 36, wherein said second mode is such that only one of the first and second processing way, which one requires a longer processing time, is applied.

38. (previously presented) The image processing method as claimed in claim 23, wherein:

said first processing way comprises an image size-change processing for an integer size-change rate, and said second processing way comprises an image size-change processing for a size-change rate which includes a fraction.

Claim 39 (canceled).

40. (previously presented) A computer readable medium storing computer executable instructions causing a computer to execute each step of the method claimed in claim 21.

41. (previously presented) A computer readable medium storing computer executable instructions causing a computer to execute each step of the method claimed in claim 22.

42. (previously presented) A computer readable medium storing computer executable instructions causing a computer to execute each step of the method claimed in claim 23.

43. (previously presented) A computer readable medium storing computer executable instructions causing a computer to execute each step of the method claimed in claim 24.

44. (previously presented) A computer readable medium storing computer executable instructions causing a computer to execute each step of the method claimed in claim 25.

45. (previously presented) A computer readable medium storing computer executable instructions causing a computer to execute each step of the method claimed in claim 26.

46. (previously presented) A computer readable medium storing computer executable instructions causing a computer to execute each step of the method claimed in claim 27.

47. (previously presented) A computer readable medium storing computer executable instructions causing a computer to execute each step of the method claimed in claim 28.

48. (previously presented) A computer readable medium storing computer executable instructions causing a computer to execute each step of the method claimed in claim 29.

49. (previously presented) A computer readable medium storing computer executable instructions causing a computer to execute each step of the method claimed in claim 30.

50. (previously presented) A computer readable medium storing computer executable instructions causing a computer to execute each step of the method claimed in claim 31.

51. (previously presented) A computer readable medium storing computer executable instructions causing a computer to execute each step of the method claimed in claim 32.

52. (previously presented) A computer readable medium storing computer executable instructions causing a computer to execute each step of the method claimed in claim 33.

53. (previously presented) A computer readable medium storing computer executable instructions causing a computer to execute each step of the method claimed in claim 34.

54. (previously presented) A computer readable medium storing computer executable instructions causing a computer to execute each step of the method claimed in claim 35.

55. (previously presented) A computer readable medium storing computer executable instructions causing a computer to execute each step of the method claimed in claim 36.

56. (previously presented) A computer readable medium storing computer executable instructions causing a computer to execute each step of the method claimed in claim 37.

57. (previously presented) A computer readable medium storing computer executable instructions causing a computer to execute each step of the method claimed in claim 38.